

Accessory Publication 1. Map and habitat variables recorded at stream sites on Macquarie Is. in 2008. Position variables were taken in the field with a GPS meter and relate to the 1:50,000 maps of Macquarie Is (published Feb 2004 by Australian Antarctic Centre), catalogue numbers 13061 and 13062 (map datum WGS84).

Site no.		GPS - E	GPS - N	GPS - altitude (m)	Total catchment area of stream system (sq km)	Slope at site (m/km)	Position of site as % of total stream length	Reach Moss	Reach Filamentous algae	%Riffle	%Pool	%Run
1	Nuggets Creek	94967	58536	217	1.70	139	6	1	0	70	30	0
2	Tributary of Scoble Lake	93693	58612	189	4.36	106	21	0	2	40	30	30
3	Island Lake Creek	92921	58325	180	2.70	115	46	0	0	90	0	10
4	Island Lake Creek at coast	92377	59011	30	2.70	125	81	0	1	70	0	30
5	Unnamed Creek at Bauer Bay	92001	54910	15	4.48	356	93	0	0	60	0	40
6	Stony Creek	91713	54381	10	2.54	105	94	0	1	45	45	10
7	Red River	92971	48903	117	5.08	135	49	0	2	30	30	40
8	Jessie Nicol Creek	90915	42353	164	4.75	10	20	0	2	50	10	40
9	Sawyer Creek	92310	44595	120	8.31	207	42	1	0	80	0	20
10	Finch Creek	94433	53641	19	2.45	149	85	0	1	100	0	0

11	Sawyer Creek at coast	93233	46363	10	8.31	167	95	1	1	0	0	100
12	Caroline Cove Creek	86631	31410	63	1.03	182	82	0	0	80	10	10
13	Lusitania Creek	89752	36582	128	3.34	238	54	0	0	90	0	10
14	Nuggets Creek at coast	95707	57608	16	1.70	299	87	0	0	90	0	10
15	Flat Creek Gadgets	91117	52644	28	7.95	24	91	0	1	75	5	20
16	Gully	95540	59856	32	0.30	346	78	0	0	80	10	10
17	Whisky Creek	89285	33185	309	3.57	204	15	0	1	30	70	0

Accessory Publication 2. Riparian vegetation changes between 1992 and 2008.

Site no.	Vegetation community in 1992	Vegetation community in 2008	Change 1992-2008
1	<i>P. hookeri</i> herbfield / Short grassland	Short grassland / feldmark / <i>P. hookeri</i> herbfield	Reduced <i>P. hookeri</i>
2	Short grassland / <i>P. hookeri</i> herbfield	Short grassland / <i>P. hookeri</i> herbfield	None observed
3	Short grassland / <i>P. hookeri</i> herbfield	Herbfield / short grassland	Increased <i>A. magellanica</i> , reduced <i>P. hookeri</i>
4	Short grassland / <i>P. hookeri</i> herbfield	Herbfield / short grassland	Increased <i>A. magellanica</i> and <i>P. annua</i> , reduced <i>P. hookeri</i> and short monocots
5	Tall tussock / <i>S. polaris</i> herbfield	Tall tussock / Short grassland / Herbfield	Reduced <i>P. foliosa</i> , <i>S. polaris</i> , increased <i>P. annua</i>
6	Tall tussock / <i>S. polaris</i> herbfield	Tall tussock / Short grassland	Reduced <i>P. foliosa</i> and <i>S. polaris</i> , increased <i>P. annua</i>
7	Short grassland	Short grassland / Herbfield	Increased <i>A. magellanica</i> and <i>P. annua</i>
8	Short grassland	Short grassland / Herbfield Short grassland	Increased <i>A. magellanica</i> and <i>P. annua</i> Increased <i>P. annua</i>

9	Short grassland, <i>S. polaris</i> herbfield / tall tussock		
10	Tall tussock / Short grassland / <i>P. hookeri</i>	Short grassland / Herbfield	Reduced <i>S. polaris</i> and <i>P. foliosa</i> , Increased <i>A. magellanica</i> and <i>P.</i> <i>annua</i>
11	Herbfield, tall tussock / <i>S.</i> <i>polaris</i>	Herbfield / Short grassland	Reduced <i>P. foliosa</i> , Increased <i>A.</i> <i>magellanica</i>
12	Herbfield	Herbfield / Tall tussock	Reduced <i>P. foliosa</i> and <i>S. polaris</i> , Increased <i>P. annua</i> and interstitial herbs
13	Not photographed	Short grassland / Herbfield	NA
14	Tall tussock / <i>S. polaris</i> herbfield	Tall tussock / Short grassland	Reduced <i>P. foliosa</i> and <i>S. polaris</i> , increased <i>P. annua</i>
15	<i>S. polaris</i> herbfield / tall tussock	Short grassland / Herbfield	Reduced <i>P. foliosa</i> and <i>S. polaris</i> ,
16	Not sampled	Short grassland	NA
17	Not sampled	Fellfield / Herbfield	NA

Accessory Publication 3. A systematic list of the invertebrate fauna found in the streams on Macquarie Island.

Turbellaria

Monocelididae

Duplominona amnica (Ball and Hay, 1977)

Nematoda

Cyatholaimidae

Thoracostomopsidae

Enoploides stewarti Nicholas, 1993

Crustacea

Harpacticoida

Marionobiotus jeanneli Chappuis, 1940

Cladocera

Chydoridae: 2 species noted; Daphniidae and Macrothricidae were recorded at several sites in 2008 and 2010.

Centropagidae

Boeckella brevicaudata (Brady, 1875)

Ostracoda: 2 species noted.

Janiridae

Iais sp.1

Oligochaeta

Enchytraeidae

Mesenchytraeus sp.1: Enchytraeid sp.1 in Marchant & Lillywhite (1994)

Cernosvitoviella sp.1: Enchytraeid sp.2 in Marchant & Lillywhite (1994)

Lumbricillus lineatus: Enchytraeid sp.3 in Marchant & Lillywhite (1994)

Phreodrilidae

Astacopsidrilus campbellianus (Benham, 1909)

Naididae

Maquaridrilus benettae Jamieson, 1968

Nais elinguis Muller, 1773

Diptera (larvae only)

Dolichopodidae

Thinophilus pedestris (Lamb, 1909)

Chironomidae

Bryophaenocladus sp.1: only one species previously caught on the island (Greenslade 2006)

Ephydriidae

Ephydrella macquariensis (Womersley, 1937)

Tipulidae

Trimicra pilipes (Fabricus, 1787)

Psychodidae

Psychoda parthenogenetica (Tonnoir, 1940)